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10/612,156	07/02/2003	Narayan Parappil Menon	I-2-0335.1US	4127

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PHILADELPHIA, PA 19103

EXAMINER

DUONG, CHRISTINE T

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/612,156

Applicant(s)

MENON ET AL.

Examiner

Christine Duong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :06/17/2004, 11/21/2005, 05/30/2006, 01/08/2007.

DETAILED ACTION

Information Disclosure Statement

The references listed in the Information Disclosure Statement, filed on 06/17/2004, 11/21/2005, 05/30/2006 and 01/08/2007, have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Specification

1. The disclosure is objected to because of the following informalities.

In paragraph [0063], the "WTRU 512" is believed to actually be "WTRU 514" in the sentence "Since the WTRU 514 is also within the PSA 518, it is desirable to have the WTRU 512 communicate with the base station 517 of the PSA 518 instead of the base station 512 in the cell 510 of the PLMN."

In paragraph [0065], the "WLAN 503" is believed to actually be "WLAN 501" in the sentences "Referring to Figure 8, a WTRU 505 which is interrogating two WLANs, WLAN 502 and WLAN 503 is shown." and "When the signal level threshold from either WLAN 502, 503 network has reached a predetermined level, the WRTU 505 will choose that WLAN to attach to."

Appropriate correction is required.

Claim Objections

2. **Claim 14** is objected to because of the following informalities: it is believed that "a radio-network layer (RNC)" is meant to say "a radio-network layer (RNL)".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-7, 10-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said IP link" in Lines 7 and 10. There are insufficient antecedent bases for these limitations in the claim. It is unclear whether this is intended to be the same as or different from the "a bidirectional internet protocol (IP) link" recited in Line 4.

Claim 2 recites the limitation "said configuration" in Line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Line 1.

Claim 3 recites the limitation "said configuration" in Line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Claim 2, Line 1.

Claim 4 recites the limitation "said configuration" in Line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Claim 2, Line 1.

Claim 5 recites the limitation "said configuration" in Line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Claim 2, Line 1.

Claim 6 recites the limitation "said configuration" in Line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Claim 2, Line 1.

Claim 7 recites the limitation "said configuration" in Line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is intended to be the same as or different from the "a specific configuration" recited in Claim 2, Line 1.

Claim 10 recites the limitations "said second station" and "the second station" in Line 3. There are insufficient antecedent bases for these limitations in the claim. It is unclear whether these are intended to be the same as or different from the "the second primary station" recited in Line 2.

Claim 11 recites the limitation "said second primary station" in Line 2. There is insufficient antecedent basis for this limitation in the claim. It is believed Claim 11 was intended to depend on Claim 8 and has been treated as such for the remainder of this Office Action. Appropriate correction is required.

Claim 12 recites the limitations "said secondary station" in Line 7. There are insufficient antecedent bases for these limitations in the claim. Additionally, there is insufficient antecedent basis for the limitation "said IP link" in Line 7. It is unclear whether this is intended to be the same as or different from the "a bidirectional internet protocol (IP) link" recited in Line 4.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claim 12 and 13** are rejected under 35 U.S.C. 102(e) as being anticipated by Sundar et al. (PG Pub US 2003/0134636 A1).

Regarding **Claim 12**, Sundar et al. discloses a method for transmitting system information over a communication system (WLAN 200 either alone or in combination with macro network 300, Fig. 3) including a primary station (Access Point AP 204 of WLAN 200, Fig. 3) and at least one wireless transmit/receive unit (WTRU) (multimode handset 310, Fig 3), the method comprising:

establishing a bidirectional internet protocol (IP) link between said primary station and said WTRU ("the control and signaling information is also carried on the IP links 304 from the WLAN 200 to the MSC 302" [0057]);

and automatically retrieving and transmitting information from said primary station to said secondary station over said IP link ("the WLAN clients are free to roam in the WLAN environment and may also roam in the WWAN environment without any manual interventions required of the subscriber" and "the WLAN and WWAN (multimode) phone 310 at any time should be able to automatically determine if it is capable of using WLAN access instead of a macro network carrier (GSM, CDMA, UMTS, TDMA, PDC, etc.)" [0057] and [0058]).

Regarding **Claim 13**, Sundar et al. discloses everything claimed as applied above (see *Claim 12*). In addition, Sundar et al. discloses the information relates to other communication systems ("the macro network 300 can determine when the mobile station 310 should be attempting to detect or discover the enterprise WLAN. The macro network 300 can send 502 information regarding the detection or discovery process to the mobile station 310 on a successful network registration" [0068]).

7. **Claims 16 and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by Ramos et al. (US 7,072,663 B2).

Regarding **Claim 16**, Ramos et al. discloses a method for enabling cell selection of preferred service areas (PSAs) (plurality of areas, Claim 36) by a wireless transmit/receive unit (WTRU) (user, Claim 36 and mobile station 2, Fig. 1) in a wireless local area network (WLAN) (network, Claim 36 and WLAN 14, Fig. 1); comprising:

communicating with a first network ("user being assigned to at least one of said areas", Claim 36);

receiving higher-level system information from the network ("receiving information identifying said plurality of candidate areas", Claim 36);

detecting the WTRU's location ("information is collected as a function of user position", Claim 37);

selecting a PSA based upon which PSAs the WTRU is permitted to access or receive availability ("estimating for each candidate area a parameter, said parameter assuming that said user is assigned to said candidate area; and prioritising said plurality of candidate areas which takes into account the estimated value of said parameter;

wherein said area with which said user is associated is divided into a plurality of smaller areas and information relating to each of said smaller areas is used in said estimating and/or prioritising step”, Claim 36);

and attaching to the PSA and releasing WLAN (“the network has some other reasons for moving the mobile station to another cell, handover/cell reselection is required”, see Column 4, Lines 27-29).

Regarding **Claim 17**, Ramos et al. discloses everything claimed as applied above (see *Claim 16*). In addition, Ramos et al. discloses the PSA locations are stored within the WTRU (“having associated therewith a plurality of candidate areas to which the user may be assigned”, Claim 36).

Claim Rejections - 35 USC § 103

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 14-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al. as applied to Claims 12 and 13 above, and further in view of Vilander et al. (PG Pub US 2004/0010609 A1).

Regarding **Claim 14**, Sundar et al. discloses everything claimed as applied above (see *Claim 12*). However, Sundar et al. fails to specifically disclose establishing

a radio-network layer (RNC) link and a transport network layer (TNL) link between said primary station and said WTRU, as claimed.

Nevertheless, Vilander et al. teaches that “the user plane protocol stack is divided between a radio network layer and a transport network layer” ([0011]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish RNL and TNL links between Sundar et al.’s primary station and WTRU because it will facilitate communication between both end nodes.

Regarding **Claim 15**, Sundar et al. and Vilander et al. disclose everything claimed as applied above (see *Claim 14*). However, Sundar et al. fails to specifically disclose that at least a portion of said retrieved information is sent over said RNL and TNL links, as claimed.

Nevertheless, Vilander et al. teaches that “the transport network layer provides transport services needed by the radio network layer” ([0011]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to send part of Sundar et al.’s retrieved information over RNL and TNL links because of “portions of the 3GPP-99 user plane protocol stack which are attributable to the transport network layer” where “3GPP-99 user plane protocol stacks employ Asynchronous Transfer Mode (ATM) technology” ([0011] and [0012]).

10. **Claims 1-3, 5, 7-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mononen et al. (PG Pub US 2003/0229595 A1) further in view of Sundar et al.

Regarding **Claim 1**, Mononen et al. discloses a method for transmitting system information (services) over a communication system including a primary station (local network 12, Fig. 1) and at least one wireless transmit/receive unit (WTRU) (mobile user MS 10, Fig. 1), the method comprising:

establishing a bidirectional internet protocol (IP) link between said primary station and said WTRU ("the wireless terminal of the user has first been switched on and network selection has been started in the terminal" [0043]);

transmitting a request for system information from said WTRU to said primary station over said IP link ("a user, for example, a mobile user MS 10 requests a service from a local network 12" [0042]);

retrieving said system information in response to said request ("the selection is then mapped to a bit rate, service, and optionally to an absolute delay and/or a delay variation" [0042]);

and transmitting said retrieved information from said primary system to said WTRU over said IP link ("the network broadcasts the network information over a channel to terminal that are listening to the broadcast channel information" [0043]).

However, Mononen et al. fails to particularly disclose that the link between the primary station and the WTRU is a bidirectional internet protocol (IP) link, as claimed.

Nevertheless, Sundar et al. teaches that "the control and signaling information is also carried on the IP links 304 from the WLAN 200 to the MSC 302" ([0057]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Mononen et al.'s invention to establish a

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bidirectional internet protocol (IP) link between said primary station and said WTRU because of engineering design choice as well as protocol choice ("a plurality of BTS communicate with a controller called the Base Station Controller (BSC) 106 via fixed links 108 using a variety of protocols and techniques, such as TDM, IP etc" [0010] and "The WLAN and WWAN (where the WWAN is described as being a UMTS and will be treated as such for the rest of this Office Action, [0013] and [0058]) are now effectively connected by the IP links 304" [0056]).

Regarding **Claim 2**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 1*). In addition, Mononen et al. discloses the request comprises a specific configuration, and said retrieved information is transmitted in said configuration, as claimed ("the network resource control may attempt to control the cell capacity usage in such a way that by offering low-cost services to a user from a less used cell, the user may be tempted to choose such a cheaper alternative, thereby optimizing the WLAN cell usage for the WLAN operator" [0041]).

Regarding **Claim 3**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). In addition, Mononen et al. discloses the configuration includes billing information ("services with corresponding charging information and a selection of available payment methods for the network access" [0045]).

Regarding **Claim 5**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). In addition, Mononen et al. discloses the

configuration includes service ability ("the MS 10 may receive a selection of available alternatives for the service" [0042]).

Regarding **Claim 7**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). In addition, Mononen et al. discloses the configuration includes data rates supported by the system ("the payment rate for services" [0045]).

Regarding **Claim 8**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). However, Mononen et al. fails to specifically disclose the request includes information regarding a second primary station; and said WTRU switches to said second primary station in response thereto, as claimed.

Nevertheless, Sundar et al. teaches that "the handsets include logic to communicate according to a WLAN air interface protocol (such as 802.xx) and to communicate according to a WWAN air interface protocol. As described herein, the mobile station may select to use one of the air interface logic unit based on its sensing of relevant radio spectrum" ([0073]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Mononen et al.'s invention to further switch to a second primary station due to information received regarding it because "this facilitates the internetworking of WLANs and WWANs and facilitates the use of multimode mobile stations that can selectively communicate with either a WLAN or a WWAN" ([0020]).

Regarding **Claim 9**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 8*). However, Mononen et al. fails to specifically disclose the primary station is a UMTS system and said second primary station is a WLAN, as claimed.

Nevertheless, Sundar et al. teaches that "FIG. 15 shows the case of the mobile station 310 roaming from a WWAN 100 to WLAN 200 environment. The mobile station 310 senses the RF strength in the proximity of the WLAN and decides to start using the WLAN environment, thus initiating a registration request" ([0080]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to make Mononen et al.'s primary station a UMTS system and second primary station a WLAN because "this facilitates the internetworking of WLANs and WWANs and facilitates the use of multimode mobile stations that can selectively communicate with either a WLAN or a WWAN" ([0020]).

Regarding **Claim 10**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 9*). However, Mononen et al. fails to specifically disclose the WTRU measures the strength of signals transmitted from the primary station and from the second primary station, and switches to said second station when the strength of the signal from the second station exceeds a predetermined signal strength level, as claimed.

Nevertheless, Sundar et al. teaches that "when the mobile station 310 roams in the WLAN 200, it continues to sense the RF energy strength of the WWAN 100 and WLAN 200. If it detects that the WLAN RF strength decreases below some threshold

value and the WWAN strength is above a threshold value, it initiates a registration process with the macro (WWAN) network 100" ([0069]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to measure Mononen et al.'s signal strength from both stations and switch to the second station when the signal strength exceeds a predetermined level because "this facilitates the internetworking of WLANs and WWANs and facilitates the use of multimode mobile stations that can selectively communicate with either a WLAN or a WWAN" ([0020]).

Regarding **Claim 11**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 8*). However, Mononen et al. fails to specifically disclose the primary station is a WLAN and the second primary station is a UMTS system, as claimed.

Nevertheless, Sundar et al. teaches that "FIG. 8 shows the movement of a mobile station 310 from a WLAN environment 200 to a WWAN environment 100. The mobile station 310 registers in the WWAN environment 100 as it roams from the WLAN 200 into the WWAN. Likewise the appropriate handoff must be made as well. The mobile station 310, using the network sensing method described above, infers that it needs to register with the WWAN environment" ([0074]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to make Mononen et al.'s primary station a WLAN system and second primary station a UMTS because "this facilitates the internetworking

of WLANs and WWANs and facilitates the use of multimode mobile stations that can selectively communicate with either a WLAN or a WWAN" ([0020]).

11. **Claims 4 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mononen et al. and Sundar et al. as applied to Claims 1-2, 5, 7-11 above, and further in view of Pichna et al. (PG Pub US 2003/0235174 A1).

Regarding **Claim 4**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). However, Mononen et al. and Sundar et al. fail to specifically disclose the configuration includes security information, as claimed.

Nevertheless, Pichna et al. teaches "the information transferred over the signaling link to cellular network may include many different types of information. For example, the information may include ... security parameters allowing for secure non-cellular ad hoc link establishment" ([0054]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow Mononen et al.'s and Sundar et al.'s configuration to include security information because it will "be used for fast and secure ad hoc communication between the terminals" ([0008]).

Regarding **Claim 6**, Mononen et al. and Sundar et al. disclose everything claimed as applied above (see *Claim 2*). However, Mononen et al. and Sundar et al. fail to specifically disclose the configuration includes the congestion status of the system, as claimed.

Nevertheless, Pichna et al. teaches "the information transferred over the signaling link to cellular network may include many different types of information. For

example, the information may include ... radio resource management messages" ([0054]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow Mononen et al.'s and Sundar et al.'s configuration to include congestion information because it will "be used for fast and secure ad hoc communication between the terminals" ([0008]).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahmavaara (PG Pub US 2005/0101245 A1) discloses a method and system for providing access to a cellular network (8), wherein a terminal device (1) is connected to an access device (2) according to access specifications of a broadband access network (12) which is not specifically designed to be used as a part of cellular network (8). The terminal device (1) indicates to the access device (2) that it wishes to be connected to the cellular network (8), and a session or call and a radio bearer is setup between the terminal device (1) and the cellular network (8).

Lescuyer et al. (PG Pub US 2004/0147262 A1) discloses a communication systems and methods are provided allowing a single mode mobile terminal to support mobile assisted signal strength measurement operations in both a fixed frequency reuse based communication network and an adaptive channel allocation based communication network. Candidate base station signal strength measurements are requested by a fixed frequency reuse type network, measured by the mobile terminal

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and provided to the fixed frequency reuse type network which is seeking to identify a strongest signal for mobile assisted handover operations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Duong whose telephone number is (571) 270-1664. The examiner can normally be reached on Monday - Friday: 730 AM - 5 PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CTD 3/30/2007

 3/30/07
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